intestinal absorption, enterohepatic cycling, distribution and hepatic conjugation. This would explain the rapid and of intense decline in levels, in spite of the high dose of antiepileptic, and the difficulty reversing the situation.

**Conclusions**

Given the magnitude of the reduction in plasma levels, the speed with which it appears and the difficulty of getting it back at T1, we think that monitoring and dose adjustments are not useful to manage this interaction. A change of anticonvulsivant or antibiotic treatment should be considered.

No conflict of interest.

**PHC-011**

**DUAL ABSORPTION IN INTRANASAL ADMINISTRATION: A NEW PHARMACOKINETIC MODEL**

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**Background**

The role of pharmacokinetic modelling is important in the development of new formulations. Some of these models are related to a particular dosage form, others are similar to models that have already been developed. Intranasal (IN) administration can be an example of a dosage form with a specific pharmacokinetic model, especially when it is applied to create a systemic effect.

**Purpose**

To design a pharmacokinetic model that adequately describes a dual absorption profile of the concentration-time curve for intranasal administration.

**Materials and Methods**

A strategy to predict dual absorption was developed to describe the pharmacokinetics of an intranasal administration (model1 and model2). A programme for fitting and simulation was developed (SIMLAB). Midazolam nasal spray was used as an example for this model. To validate the final pharmacokinetic model, Monte Carlo simulations were performed.

**Results**

We had trouble fitting the observations to a single one-compartment dual absorption model. In many cases a flip-flop condition occurred in which the fitted absorption rate was lower than the estimated elimination rate, and the elimination rate showed an unrealistic value. To prevent this flip-flop condition, we used the absorption parameters from the associated observations. We developed the following model: the model superposes two one-compartment absorption models where the dose is split up over the two compartment inputs and the concentration-time curves are separated by using different lag-times (t0). Monte Carlo simulations resulted in a plasma concentration-time profile, indicating the median concentration and the 5th–95th percentile ranges. Biphasic profiles were observed starting at a parameter error of 15%, increasing to 13.6% of biphasic profiles at a parameter error of 46.6% of our patients had received one prior chemotherapy regimen before erlotinib and 36.6% had received two prior chemotherapy regimens before erlotinib. Two patients took erlotinib as a first line treatment. Median PFS for second-line erlotinib patients was 18.7 weeks while for third-line erlotinib patients it was 12.3 weeks. Only 50% of our patients had information available regarding EGFR mutational status; however patients who harboured tumour-associated EGFR activating mutations seemed to have higher response rates to erlotinib. Rash was the most common treatment-related adverse event with erlotinib, as expected.

**Conclusions**

Our results show that maybe there could be a better disease outcome for advanced NSCLC patients if the oral epidermal growth factor receptor tyrosine kinase inhibitor (erlotinib) were administered as a second-line treatment instead of using it as a third-line treatment. As far as EGFR mutational status is concerned it seems that enhanced efficacy is related to EGFR mutation-positive disease.

No conflict of interest.

**PHC-013**

**EXPERIENCE WITH CANNABINOID TREATMENT**

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**Background**

Since March 2011 cannabinoids have been authorised in Spain for the treatment of spasticity due to multiple sclerosis (MS). The product is composed primarily of two cannabinoids: CBD (cannabidiol) and THC (delta 9 tetrahydrocannabinol) and it is administered as a metered dose oro-mucosal spray. The dose should be individualised after a titration period.

**Purpose**

To describe the use of CBD-THC in our hospital and to evaluate adverse effects and the quality of life of the patients treated.

**Materials and Methods**

Descriptive study of all patients treated with CBD-THC from March 2011 to September 2012. Patients were monitored from the start of their treatment. We recorded the titration period, maintenance dose and adverse effects.